-200 500 HOME NETWORK HNW HOME NETWORK SYSTEM -100 DHCP SERVER GENERAL TERMINAL HOME AGENT (HA) SYS MOBILE IP NETWORK SYSTEM IP NETWORK FOREIGN AGENT (FA) MOBILE NODE (MN) 600 FOREIGN NETWORK FNW FOREIGN NETWORK SYSTEM''''

FIG. I

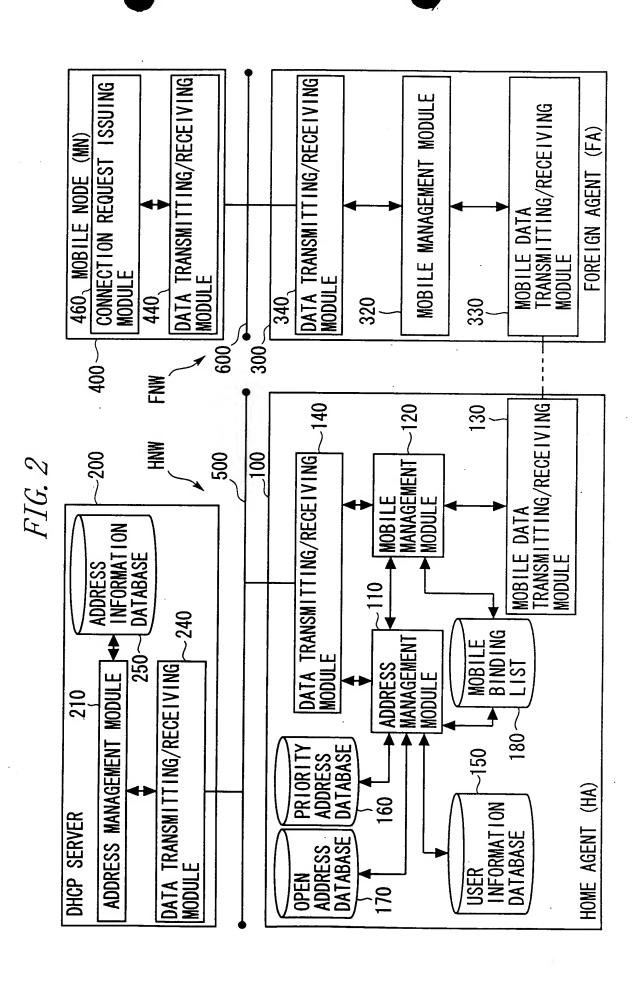


FIG. 3A			FIG. 3B		
USER IDENTIFIER(MN-NAI)	VAI) USER PRIORITY DE LOS INVERSES DE LA CONTRETA DE LOS INVERSES DE LA CONTRETA DEL CONTRETA DE LA CONTRETA DEL CONTRETA DE LA CONTRETA DE L		ADDRESS ASS SS	ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORI	TIVE USER PRIORITY
<u>aaa</u> 2	PRIORITY A		aaa. aaa. aaa. aa? aaa. aaa. aaa. aa?		
<u>aaa3</u>	PR OR TY A	150	aaa, aaa, aaa, aa3		
2224 2225	PRIORITY A	160			
1999		2			
<u>ppp2</u>	ORITY	Ţ			
ppp3	\geq				
ppp4	PK 0K				
pppe	OR TY				
	PRIORITY B				
8999	IORITY				
6999	IORITY				
ppp10	PRIORITY B				
FIG. 3C			FIG. 3D		180
ADDRESS OPEN	TIME FORCED DELE	IE RANK	CTIVE USER IDENTIFIE	ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTI	ACTIVE USER PRIORITYLT
		_ <u>_</u> 			
*1: ASSUMING THAT 15 *2: FIVE PRIORITY-A	USERS (PRIORITY-A USERS ARE BEGIS	USERS: aak TERED, AN	al-aga5 PRIORITY- ID of Toland	TUSERS: aaa1-aaa5 PRIORITY-B USERS: bbb1-bbb10) ARE REGISTERED IN HA	STERED IN HASES
FUK 3 PKIUKIIY-A C	JSEKS BEFUKEHAND				

FIG. 44 USER ID agaa1 agaa1 agaa3 agaa3 agaa3 agaa4 agaa3 bbb1 bbb2 bbbb1 bbb1 bb1	4 FIG. 4B	R PRIORITY IORITY A	150		PRIORITY B	000 V	-1	PRIORITY B	FIG. 4D	OPEN TIME FORCED DELETE RANK ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITY[.] aaa.aaa.aaa.aaalpriority A		*1:USER agaa1 1S GIVEN PRIORITY—A AND THEREFORE USES IP ADDRESS REGISTERED IN PRIORITY—	. VIA
	FIG. 4A	USER IDEN aaa1 aaa2	2223 2224 2225	<u>bbb1</u> <u>bbb2</u>	ppp3	pppg pppg ppp	8999	5550 55510	FIG. 4C	ADDRESS			ı

ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITY aa. aa2 aa. aa3 aa. aa3	FIG. 5D ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITY A bbbi bbi lS GIVEN PRIORITY B AND THEREFORE OBTAINS IP ADDRESS ACTIVE USER PRIORITY A bbb bbi bbi bbi FROM DHCP SERVER ALL USERS agai AND DBbi ARE ACTIVE IS ADMINISTERED
FTG. 5B FIERMN-NAD USER PRIORITY PRIORITY A PRIORITY A PRIORITY B	### FORCED DELETE RANK agail ### ### ############################
FIG. 5A USER IDENTIFIER(MN-NA) aaaa1 aaaa2 aaaa3 aaaa4 aaaa5 bbb1 bbb2 bbb3 bbb3 bbb5 bbb7 bbb7 bbb8 bbb8 bbb8	FIG. 5C

ADDRESS ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITY aaa.	FIG. 6D ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITYLT aaa aaa aaa aaa aaa aaa aaa aaa aaa aa
FIG. 64 USER IDENTIFIER(MN-NAI) USER PRIORITY A aaa aaa aaa aaa aaa aaa aaa aaa aaa	ADDRESS OPEN TIME FORCED DELETE RANK AGATIVE AND AGE TO BE THE RANK AGAINE THE FORCED DELETE RANK AGAINE THE BIND AND AGAINE THE BIND AGAINE THE BIND AND AGAINE THE BIND AGAINE THE BIND AGAINE THE BIND AGAINE THE BIN

ADDRESS ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITY aaa. aaa. aaa. aaa. aaa. aaa. aaa. aa	TION THE RANK ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITY A BDbb. bcb. bcb. bcb. bcb. bcb. bcb. bcb.
USER IDENTIFIER(MN-NAI) USER PRIORITY A aaaa aaaa aaaa aaaa aaaa aaaa aaaa	ADDRESS OPEN TIME FORCED DELETE RANK ACTIVE BDB2 BDB2 ACTIVE BDB2 BDB2 BDB2 ACTIVE BDB2 BDB2 ACTIVE BDB2 BDB2 BDB2 ACTIVE BDB2 BDB2 BDB2 ACTIVE BDB2 BDB2 BDB2 ACTIVE BDB2 BD

FIG. 84 USER IDENTIFIER MIN-NA aaaa1 aaaa5 aaaa5 aaaa5 abb1 bbb1 bbb3 bbb3 bbb6 bbb6 bbb6 bbb6 b	N TIME FORCED DELET	150 150 150 150 150 150 150 150 150 150	ADDRESS ACTIVE USER IDENTIFIER (MV-NAI) ACTIVE USER IDENTIFIER (MV-NAI) ACTIVE USER IDENTIFIER (MV-NAI) ACTIVE USER IDENTIFIER (MV-NAI) ACTIVE ADDRESS aga aga aga aga aga aga aga aga aga a	ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITY A PRIORITY A PRIORITY A PRIORITY A 180 180 ER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITY A aaa aaa aaa aaa aaa aaa aaa aaa aaa a	
	-*1:ADDRESS bbb. bbb. bbb.	5. bb1 IS MA	MADE OPEN		

ADDRESS ACTIVE USER IDENTIFIER (MN-MAI) ACTIVE USER PRIORITY A aaa aaa aaa aaa aaa aaa aaa aaa aaa	FIG. 9D THE RANK ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITY A aaaa aaa aaa aaa aaa aaa pR 10R 1 TY A aaaa 2 ADDRESS IS ADMINISTERED ADDRESSES OBTAINED FROM DHCP SERVER ADDRESSES OBTAINED FROM DHCP SERVER
USER IDENTIFIER(MN-NAI) USER PRIORITY A aaaa 3 PRIORITY A aaaa 4 PRIORITY A aaaa 4 PRIORITY A aaaa 5 PRIORITY A bbb 1 PRIORITY B PRIORITY B bbb 2 PRIORITY B PRIORITY B bbb 4 PRIORITY B bbb 6 bbb 9 PRIORITY B	ADDRESS OPEN TIME FORCED DELETE RANK *1: USER USING PRIORITY ADDRE *2: ADDRESSES bbb. bbb. bbb. bbb. bbb. bbb. bbb.

ADDRESS ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITY aaa. aaa. aaa. aaa. aaa. aaa. aaa. aa	P. I.O. ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITYLLI ADDRESS DATABASE RESS OBTATINED FROM DHCP SERVER IS MANAGED WITHIN TIME t IN OPEN ADDRESS DATABASE
TIFIER(MN-NAU) USER PRIORITY A PRIORITY A PRIORITY A PRIORITY B	ADDRESS OPEN TIME FORCED DELETE RANK ACT IVE USER IS DELETED FROM NEW ASS. OBTAINED FROM DHCP SE

ADDRESS ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITY A aaaa. aaa. aaa. aaa. aaa. aaa. aaa.	ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITY LA BEBB 1
USER IDENTIFIER(MN-NAI) USER PRIORITY A aaaa aaaa aaaa bbb 1	ADDRESS OPEN TIME FORCED DELETTE RANK *1: IT IS INDICATED TH *1: IT IS INDICATED TH *2: IT IS INDICATED TH

FIG. 12A

USER IDENTIFIER(MN-NAI)	USER PRIORITY]
aaa1	PRIORITY A	
aaa2	PRIORITY A	1
aaa3	PRIORITY A	
<u>aaa4</u>	PRIORITY A	ĺ
aaa5	PRIORITY A	
bbb1	PRIORITY B	150
bbb2	PRIORITY B	
bbb3	PRIORITY B	
bbb4	PRIORITY B	
bbb5	PRIORITY B	
bbb6	PRIORITY B	
bbb7	PRIORITY B	
bbb8	PRIORITY B	
bbb9_	PRIORITY B	
bbb10	PRIORITY B	

FIG. 12B

160

ADDRESS ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITY

aaa. aaa. aaa. aaa. aa2 aaa2 PRIORITY A

aaa. aaa. aaa. aaa. aa3 aaa3 PRIORITY A

PRIORITY A

FIG. 12C

ADDRESS	OPEN TIME FORCED DELETE RANK	
		:
		170

FIG. 12D

180

ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITY LT aaa1 aaa.aaa.aa1|PRIORITY A aaa.aaa.aaa.pRIORITY aaa2 aaa.aaa.aaa.pRIORITY aaa3 bbb. bbb. bbb. bb1 PRIORITY bbb1 bbb2 bbb. bbb. bbb. bb2 PRIORITY bbb3 bbb. bbb. bbb. bb3 PRIORITY bbb4 bbb. bbb. bbb. bb4 PRIORITY bbb5 bbb. bbb. bbb. bb5 PRIORITY bbb6 bbb. bbb. bbb. bb6 PRIORITY bbb7 bbb. bbb. bb7 PRIORITY CCC1 CCC, CCC, CCC, CC1 PRIORITY CCC2 CCC, CCC, CCC, CC2 PRIORITY CCC, CCC, CCC, CC3 PRIORITY CCC3 CCC, CCC, CCC, CC4 PRIORITY

FIG. 13A

USER IDENTIFIER(MN-NAI)	USER PRIORITY	
aaa1	PRIORITY A	
aaa2	PRIORITY A	1
aaa3	PRIORITY A	1
aaa4	PRIORITY A	1
aaa5	PRIORITY A	1
bbb1	PRIORITY B	150
bbb2	PRIORITY B	
bbb3	PRIORITY B	
bbb4	PRIORITY B	
hhh5	PRIORITY B	
bbb6	PRIORITY B	
bbb7	PRIORITY B	
bbb8	PRIORITY B	
bbb9	PRIORITY B	
bbb10	PRIORITY B	

FIG. 13B

				160	
ADDRESS	ACTIVE USER IDENTIFIER (MN-NAI)	ACTI	VE I	ISFF	PRIORITY
<u>aaa.aaa.aaa,aa</u> 1	laaa1	PRI	ORI	TY	A
aaa. aaa. aaa. aa2		PRI	ORI	ΤΥ	Ā
<u>aaa, aaa, aaa, aa3</u>	aaa3	PRI	ORI	ΤΥ	A
		<u> </u>			·
		<u> </u>			
		ļ			
	· · · · · · · · · · · · · · · · · · ·				

FIG. 13C

			_
ADDRESS	<u>OPEN TIME</u>	FORCED DELETE RANK]
CCC, CCC, CCC, CC2		PRIORITY A)	170
CCC, CCC, CCC, CC3	Z	PRIORITY A	
CCC, CCC, CCC, CC4	Z	PRIORITY A	
			1
			1
			İ
	-		
*1 · ID ADD	DECC LICE	D PV DDIODITY C	LICED IC
STROFD	IN OPEN	D BY PRIORITY-C I ADDRESS DATABAS USERS OTHER THAN	USEK 15
*2 : ĂĹĹŨĊĂ	Τίὂυ τοι'	USERS OTHER THAN]
PRIURI	IY-A USE	RS IS INHTBITED	WITHIN
TIME z			

FIG. 13D

	FIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORI
<u> </u>	aaa.aaa.aaa1 PRIORITY A
<u>aaa2</u>	aaa.aaa.aa2 PRIORITY A
<u>aaa3</u>	aaa.aaa.aaa PRIORITY A
bbb1	bbb. bbb. bbb. bb1 PRIORITY B
obb2	bbb. bbb. bbb. bb2 PRIORITY B
obb3	bbb, bbb, bb3 PRIORITY B
obb4	bbb. bbb. bbb. bb4 PRIORITY B
obb5	bbb. bbb. bbb. bb5 PRIORITY B
obb6	bbb. bbb. bbb. bb6 PRIORITY B
obb7	bbb. bbb. bb7 PRIORITY B
1224	CCC, CCC, CCC, CC1 PRIORITY A
4	

FIG. 14A

USER IDENTIFIER(MN-NAI)	USER PRIORITY]
<u>aaa1</u>	PRIORITY A	Ì
aaa2	PRIORITY A]
aaa3	PRIORITY A	
<u>aaa4</u>	PRIORITY A	1
aaa5	PRIORITY A	
bbb1	PRIORITY B	
bbb2	PRIORITY B]
bbb3	PRIORITY B	
bbb4	PRIORITY B	- 150
bbb5	PRIORITY B	150
bbb6	PRIORITY B	
bbb7	PRIORITY B	
bbb8	PRIORITY B	
bbb9	PRIORITY B	
bbb10	PRIORITY B	

FIG. 14B

ADDRESS ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE USER PRIORITY A
160

FIG. 14C

ADDRESS	OPEN	TIME	FORCED	DELETE	RANK		
CCC, CCC, CCC, CC2	dt 💮					-	
ccc.ccc.ccc.cc	∄t						
CCC, CCC, CCC, CC	1t					<u></u>	·1
							'
	ļ						
	ļ						
	<u> </u>						
	igspace						

L*1:PREFERENTIAL ALLOCATION MODE TO PRIORITY—A
USER IS SWITCHED OVER TO GENERAL ALLOCATION
MODE BY CLEARING FORCED DELETE RANK AFTER
ELAPSE OF PROTECTION TIME z OF FORCIBLY
DELETED IP ADDRESS AND REWRITING STORAGE
CONTENT WITHIN OPEN TIME t, AND OBTAINED IP
ADDRESS IS RETURNED TO DHCP SERVER AFTER
ELAPSE OF OPEN TIME t. IF REGISTRATION REQUESTS
ARE GIVEN FROM PRIORITY—A,—B AND—C USERS,
IP ADDRESSES STORED IN OPEN ADDRESS DATABASE
ARE ALLOCATED

FIG. 14D

180

ACTIVE USER IDENTIFIER (MN-NAI) ACTIVE ADDRESS ACTIVE USER PRIORITY LT laaa 1 aaa.aaa.aa1|PRIORITY A aaa2 aaa.aaa.aaa.priority aaa.aaa.aa3|PRIORITY aaa3 bbb1 bbb. bbb. bb1|PRIORITY В bbb2 bbb, bbb, bbb, bb2 PRIORITY bbb3 bbb. bbb. bbb. bb3|PRIORITY bbb4 bbb, bbb, bbb, bb4 PRIORITY <u>bbb5</u> bbb. bbb. bbb. bb5|PRIORITY bbb6 bbb. bbb. bbb. bb6 PRIORITY bbb7 bbb, bbb, bbb, bb7 PRIORITY aaa4 CCC, CCC, CCC, CC1 PR I OR I

FIG. 15

250 ADDRESS INFORMATION DATABASE

	ON-LEASE OF non non non TO CLIENT about	◆ON-LEASE OF nnn. nnn. nn2 T0 Cl IFNT abc?	ON-LEASE OF nnn. nnn. nn3 T0 Cl IFNT abc3	←UNUSED (FREE)				◆-UNUSED (FREE)
뿔		♦	♦	♦				▼
LEASE T		E	u					
LEASE IP ADDRESS CLIENT IDENTIFIER LEASE TIME								
CL I ENT	abc1	abc2	abc3			•		
P ADDRESS	nnn. nnn. nnn. nn1 abc1	nnn. nnn. nnn. nn2 abc2	nnn. nnn. nnn. nn3 abc3	nnn. nnn. nnn. nn4	•	•	•	nnn. nnn. nnn. mmm
LEASE I	nu. nul	nun. nni	nn. nni	nn. nni	-			nnn. nnr

FIG. 16

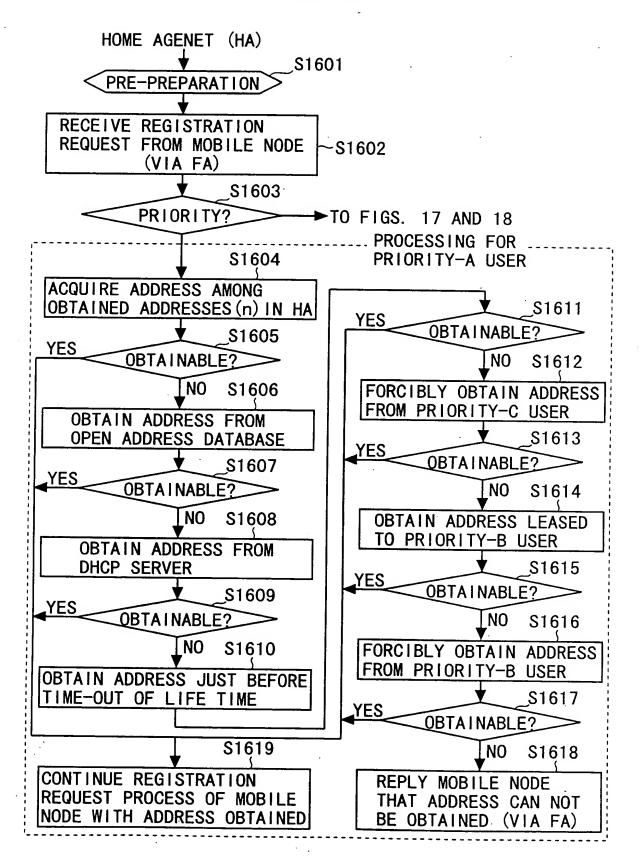


FIG. 17

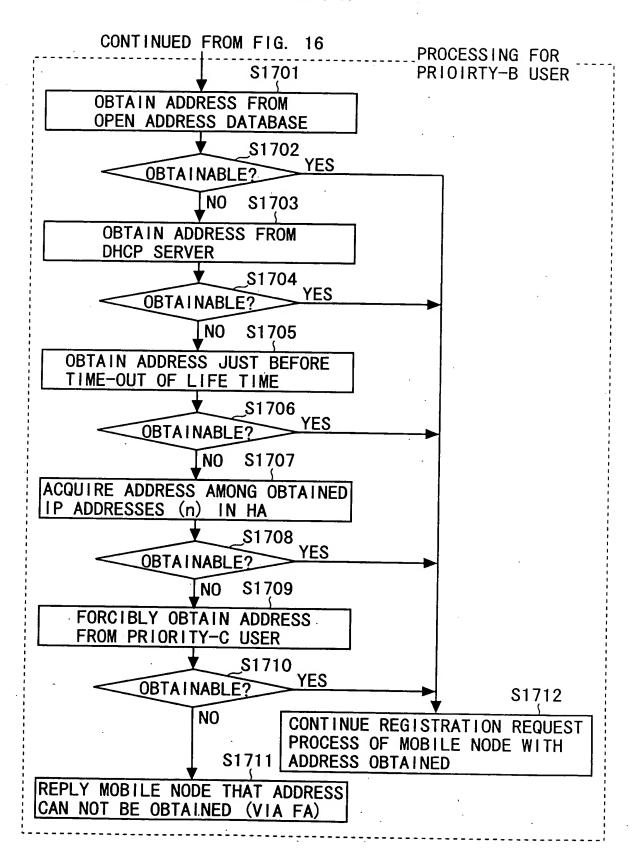


FIG. 18

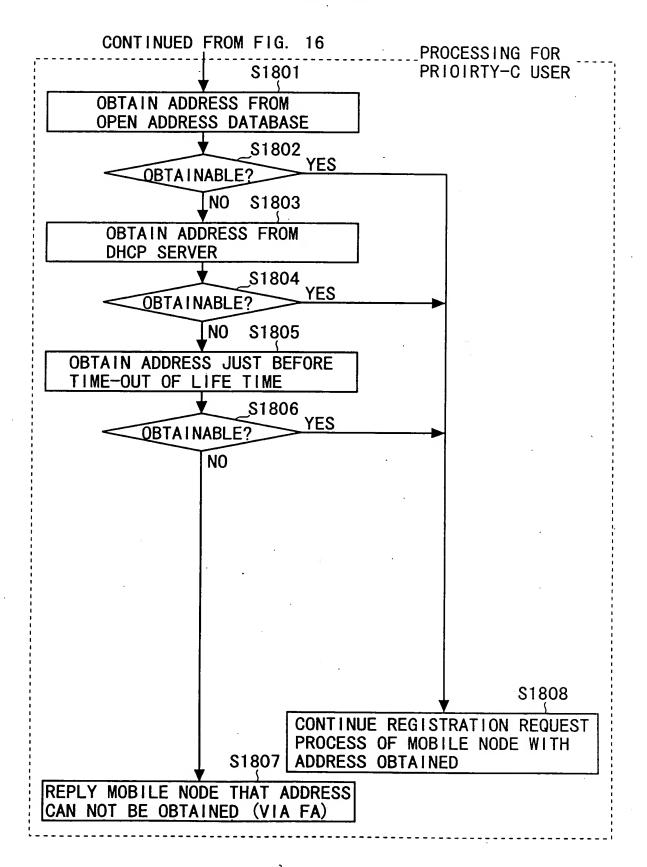


FIG. 19A

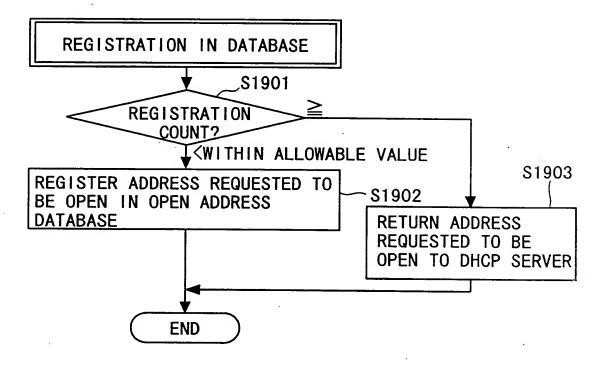
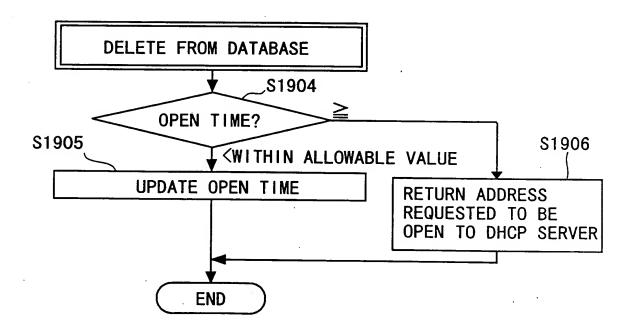


FIG. 19B



OUTPUT EXTRACTED ADDRESS PRIORITY C EXTRACT ADDRESS FROM OPEN ADDRESS DATABASE DELETE EXTRACTED
ADDRESS FROM DATABASE **S2016** \$2015 **S2017 S2019** EXTRACTABLE ELAPSE PROTECTIO TIME? YES DELETED WIT \$2018 EXTRCTED \$2013 |\$2014 OUTPUT E ADDRESS 2 S2012—OUTPUT EXTRACTED ADDRESS ACT ADDRESS FROM ADDRESS DATABASE DELETE EXTRACTED ADDRESS FROM DATABASE S2008 S2009 VES S2010 PRIORITY ELAPSE PROTECTION TIME? EXTRACTABLE FORCIBLY, LETED WITH PRIORITY FIG. 20 YES ᆼ S2007~ **S2006** OUTPUT "UNEXTRACTABLE" ~ \$2002 OUTPUT EXTRACTED ADDRESS ACT ADDRESS FROM ADDRESS DATABASE \$2003 DELETE EXTRACTED ADDRESS FROM DATABASE ,YES S2004 \$2001 PRIORITY ADDRESS EXTRACTION EXTRACTABLE PRIORITY END EXTRACT OPEN AD \$2005

t, mir, our, mun one in

FIG. 21A

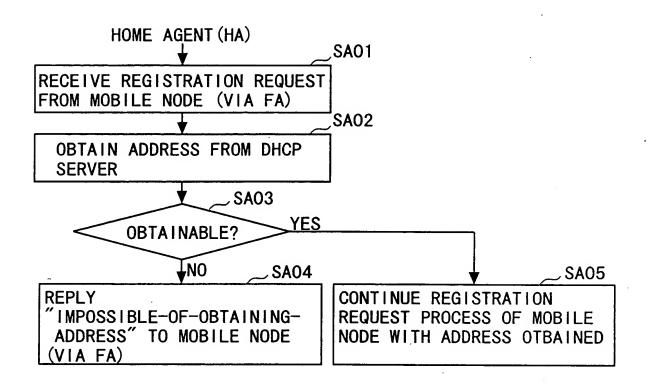


FIG. 21B

